



The Right Skills, at the Right Time, *at the Right Price*



Oracle BPM: An Overview

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Overview

In the latest 11.x version of Fusion Applications, Oracle made sizeable improvements to the Business Process Modeling module. This paper will show how the new Business Process Management features of Fusion Middleware 11.x can be used within any company to improve workflows, increase agility, and align all departments in an organization.

About BPM

Business process modeling (BPM) is the activity of representing processes of an enterprise so that the current process may be analyzed and improved.¹ BPM is used for process transparency, process intelligence, business empowerment, and business alignment. Every organization wants to leverage advanced methods and technologies to deliver consistent, repeatable, and efficient outcomes. BPM helps you define and manage your business processes so your organization can reach its goals.

What are some of the benefits of implementing BPM in your organization?

- Greater agility and productivity
- Ability to make better and faster decisions
- Increased speed to market
- Penetration into global markets
- Higher levels of regulatory compliance
- More satisfied customers
- Accelerated innovation
- Lower costs
- Higher revenues
- Motivated employees

As a collaborative effort between business units and the IT world, BPM fosters a new paradigm of efficient and logical business processes.



The Oracle BPM Method

The tools provided by Oracle (including the Weblogic and SOA Server middleware pieces) offer many unique and specific benefits to developers and organizations looking to implement BPM. Oracle has defined a “BPM Method” for implementing BPM—a customizable framework containing detailed procedures for practical use of the Oracle BPM solution to analyze, design, deploy, monitor and improve business processes. The goals of the Oracle BPM Method are to:

- provide a full-lifecycle, lightweight, pragmatic and customizable approach to business process management.
- provide guidance for organizational adoption of business process management.
- define basic concepts independent of specific products or notations.
- emphasize SOA-Enabled BPM adoption.
- ensure BPM Method best practices are supported by Oracle products, whenever applicable.
- align BPM Method concepts with other enterprise architecture initiatives within Oracle.

Who Participates in this Process?

Typically, the following groups and group members are active participants in the BPM implementation process:

Line of Business

- Business Leadership
- Process Owner
- End User
- Process Analyst
- Documentation & Training

Contributors & Advisors

- Enterprise Architect
- Security Architect
- Data Architect

IT

- Process Architect
- Process Developer
- Software / Service Developer
- Quality Assurance
- IT Administrators and Operations Managers



The Roles of the Participants

The roles of modeling participants are as follows:

Process Owners (Design Phases) - responsible for:

- Capturing and managing the graphical business process models
- Driving process optimization
- Recommending changes
- Handling process change requests from the business
- Incorporating incremental process improvements
- Identifying and coding business rules
- Working in User Acceptance Testing

Process Architects - responsible for:

- Analysis and design of technical aspects for the process
- Defining technical integration strategies
- Technical specification for new IT capabilities
- Directing system and integration testing
- Implementation

Process Developers - responsible for:

- Refining the process model
- Making technical configurations
- Rapidly creating business processes using tools.
- Creating implementation artifacts.
- Populating business catalog with rich implementation artifacts.
- Deployment of BPM processes using various Oracle tools

Administrators or Operation Managers - responsible for:

- Configuring and Monitoring SOA Infrastructure
- Configuring BPMN Process Service Engine
- Integrating Oracle BPM with External Monitoring, such as Oracle Business Activity Monitoring, and many more.

Process Owners (Implementation Phases) - responsible for:

- Monitoring and maintaining running processes
- Assisting the Business Process Analyst throughout the modeling



- Assisting the Business Process Administrators throughout runtime
- Managing process flow
- Assigning tasks
- Defining rules and objectives
- Analyzing end-to-end business process performance
- Making process-specific decisions to resolve conflicts like the gap between departmental silos of business process activities where ownership is undetermined and knowledge is sparse. Process owners resolve such issues, as they are the process experts responsible for the end-to-end flow of key business processes.
- Advocating recommendation for enterprise-wide process improvements.
- Monitoring business process(es) that they own

What are the Typical Steps in Defining and Implementing a BPM Process?

Step 1 – Selection

Selecting a business process for representation as a BPM project within Oracle is the first step. This step typically involves Process Owners and Analysts along with the Enterprise Architect. Typical inputs for this step include:

Step 2- Definition

Defining a business process for representation as a BPM project within Oracle is the next step. This step typically involves Process Owners and Analysts along with End Users. Typical inputs for this step include:

Step 3 – Refinement

The refinement of business processes is the third step. This step typically involves Process Owners and Analysts along with End Users and Business Leadership. Typical inputs for this step include:

Step 4 – Technical Analysis and Process Design

This step typically involves the Process and Enterprise Architects. Typical inputs for this step include:

Step 5 – Business Process Application Composition

This step typically involves the Process and Software Developers. Typical inputs for this step include:

Step 6 - Testing

This step typically involves the Process and Software Developers and Quality Assurance. Typical inputs for this step include:

Step 7 - Deployment

This step typically involves the Documentation and Training teams, Process and Software Developers, Quality Assurance, and the Enterprise Architect. Typical inputs for this step include:

**Step 8 - Approval**

This step typically involves the End Users, Process Analyst, and Quality Assurance group.

Typical inputs for this step include:

Step 9 - Commissioning / Production Deployment

This step typically involves the IT Operations group, Process Architects, Process

Developers, and the Enterprise Architect. Typical inputs for this step include:

Step 10- Monitoring

This step typically involves Process Owners, Process Analysts, and IT Operations.

Typical inputs for this step include:

- Performance expectations
- Exception handling procedures

The outputs for this step typically include:

- Process analytics

Oracle tools used for this step include:

- BPM Workspaces
- Oracle SOA Suite
- Business Activity Monitoring
- Oracle Enterprise Manager
- Oracle Web Services Manager

How Do I Implement a BPM Process in Oracle JDeveloper?

The Oracle BPM Suite provides two primary applications for modeling and implementing business processes:

1. **Oracle BPM Studio** - supports Business Process Management Notation (BPMN) 2.0. It is a component of the Oracle BPM Suite that provides a user-friendly environment. With BPM Studio you can:
 - a. model business processes
 - b. define business rules and performance indicators
 - c. simulate processes

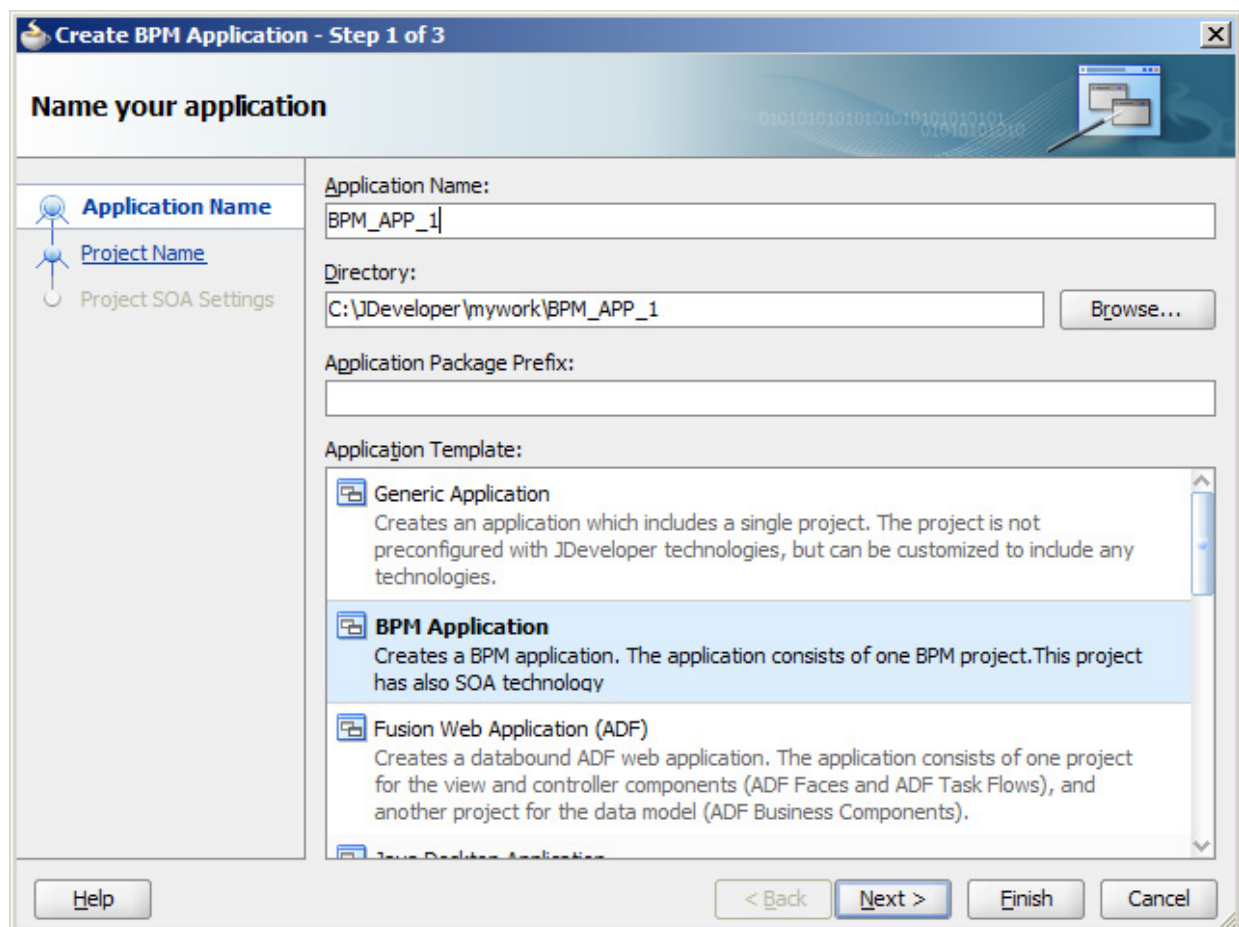
d. determine the optimal resource requirements to achieve specified SLAs

2. Business Process Composer - provides a user friendly environment for editing processes and process templates created in Oracle BPM Studio.

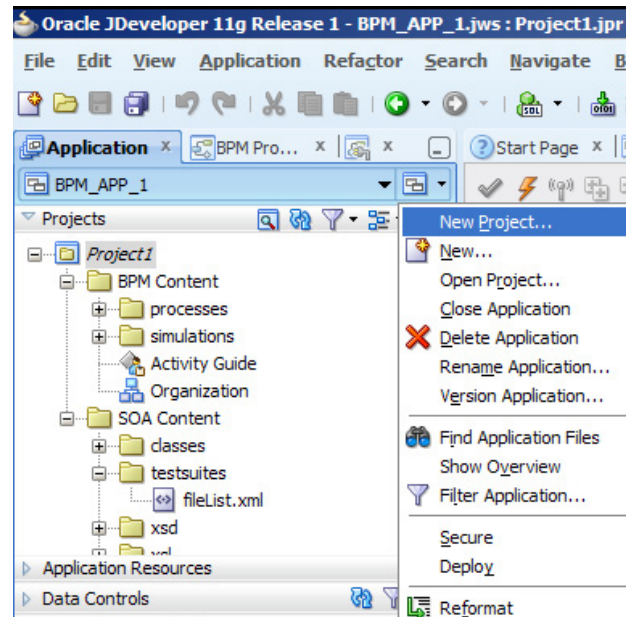
Oracle provides another tool called the Oracle Business Process Analysis Suite (BPA). The BPA is beyond the scope of this paper; however, if your answer is 'YES' to following requirements, use BPA:

- Are concentrating only on a process and not enterprise-wide modeling?
- Do you have human-centric Use Cases that require flexibility and collaboration?
- Do you have to focus on the project at hand and not on your total enterprise?

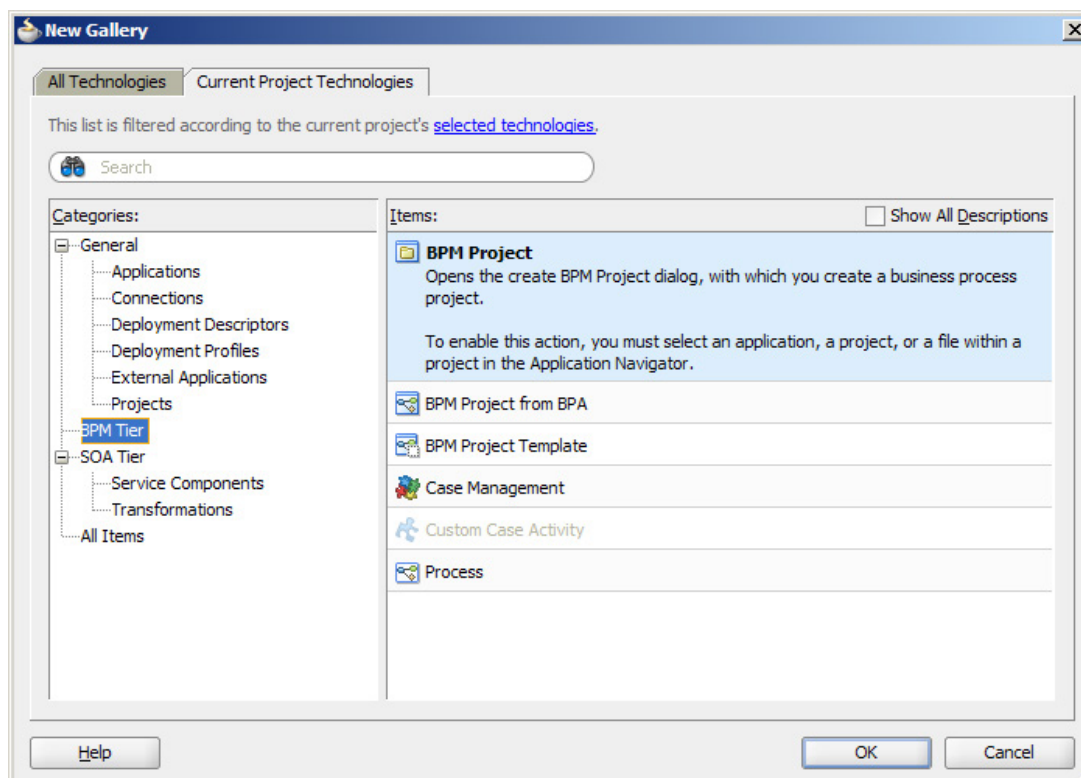
First, start Oracle JDeveloper and select New Application. Select BPM Application and give it a meaningful name. The dialog box says "Step 1 of 3", but we can skip over steps 2 and 3 for this example and just click "Finish" to exit the wizard:



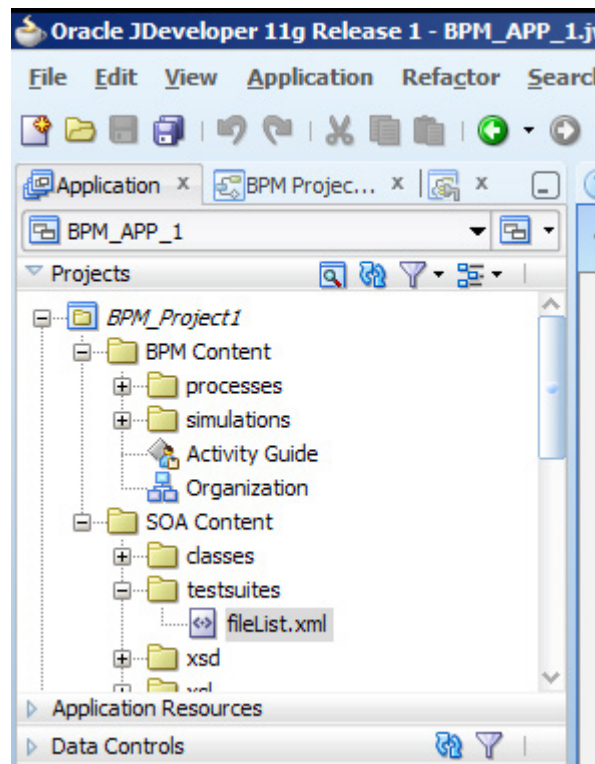
Oracle JDeveloper will generate a bunch of project files to get you started. When it's complete, click the Application button and select "New Project."



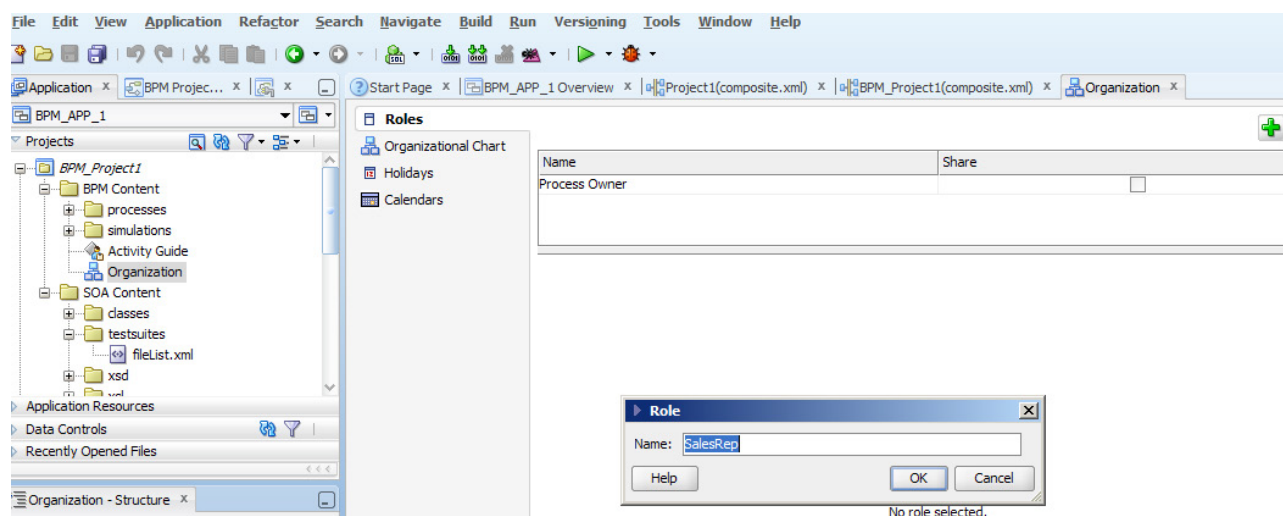
Choose BPM Tier and BPM Project:



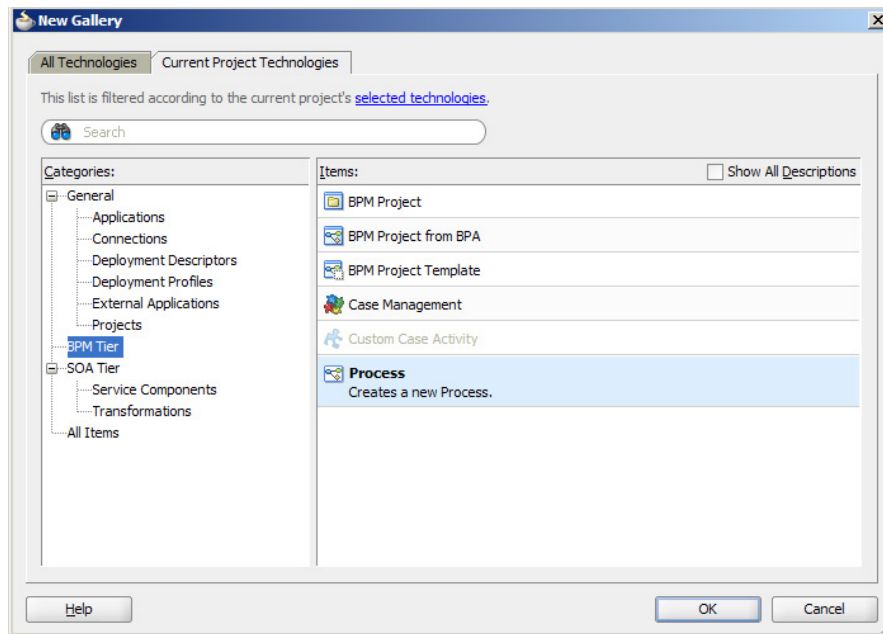
Give your project a meaningful name (I chose BPM_Project_1) and click “Finish”:



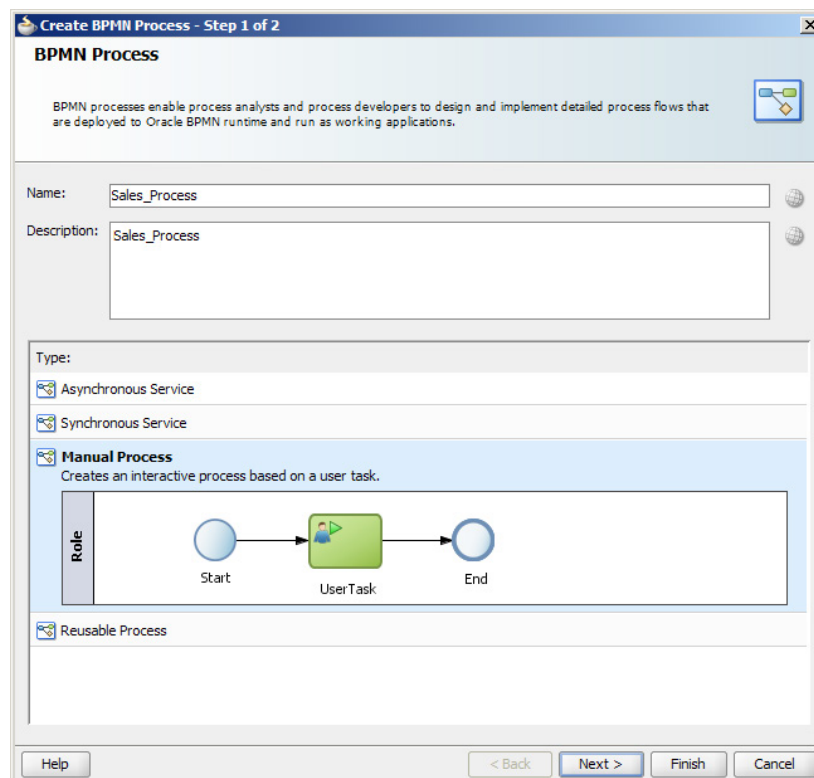
Double-click Organization, then select the “Roles” tab. Click the (+) to add a role. Add a role called SalesRep:



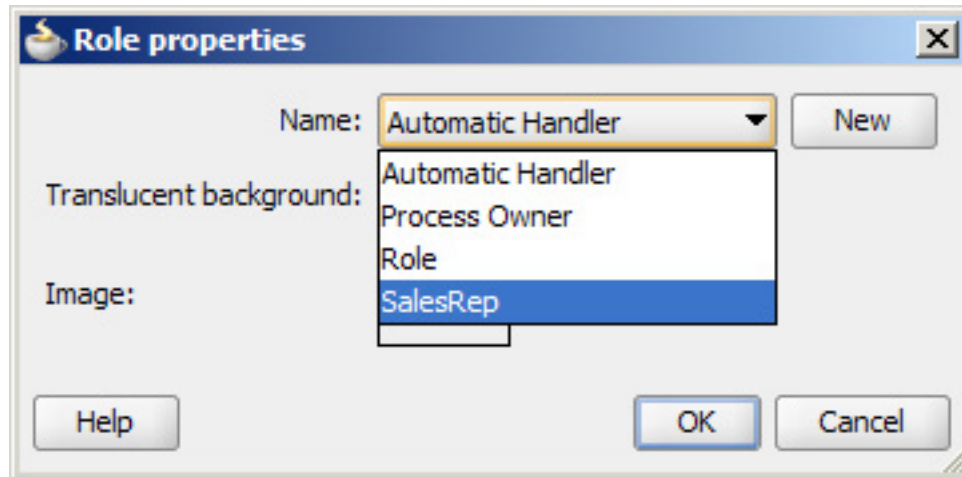
Create a process by right-clicking “Processes” in the projects window, then “New,” then BPM Tier on the left-hand side and “Process” on the right-hand side:



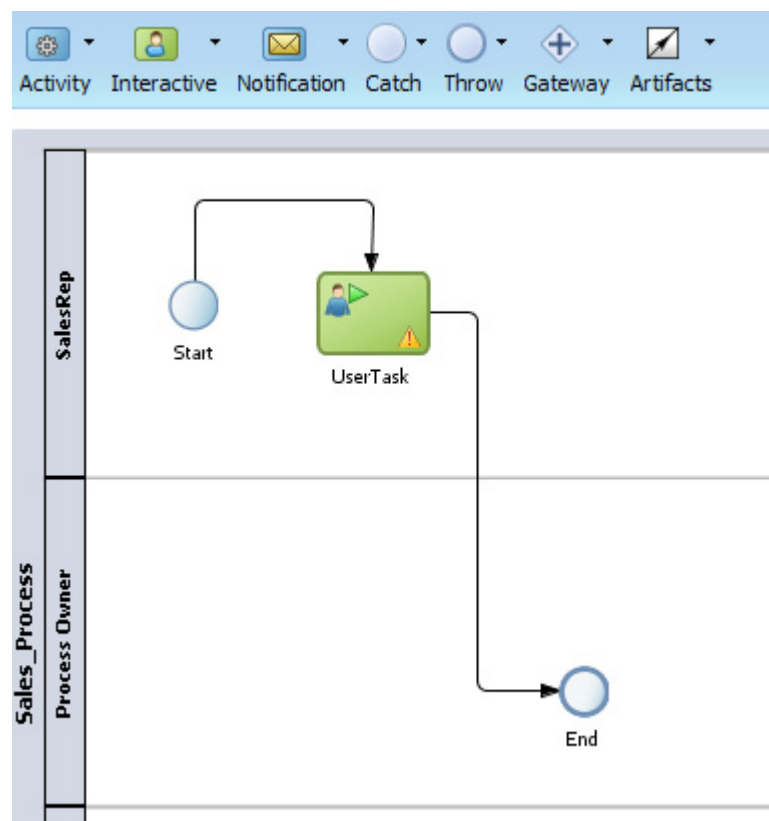
Give the process a meaningful name, select “Manual Process,” and click next:



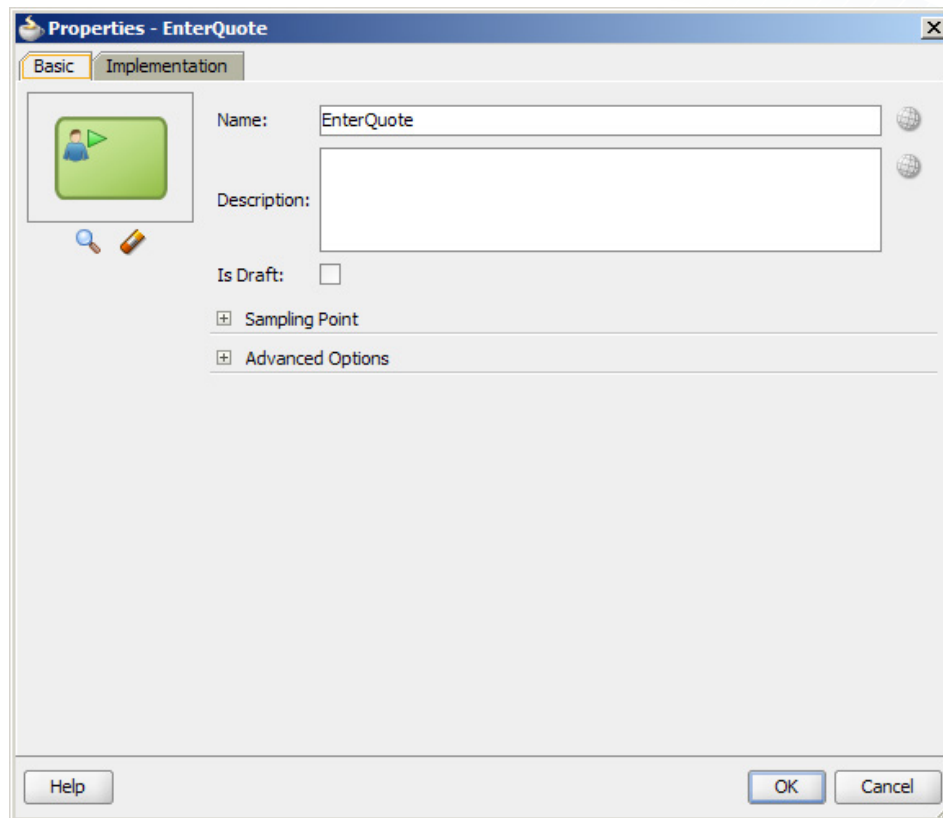
Make sure Inherit Project Default is selected and click “Finish.” Right-click in the swim lane and select “Add Role.” Select the SalesRep role and click “OK”:



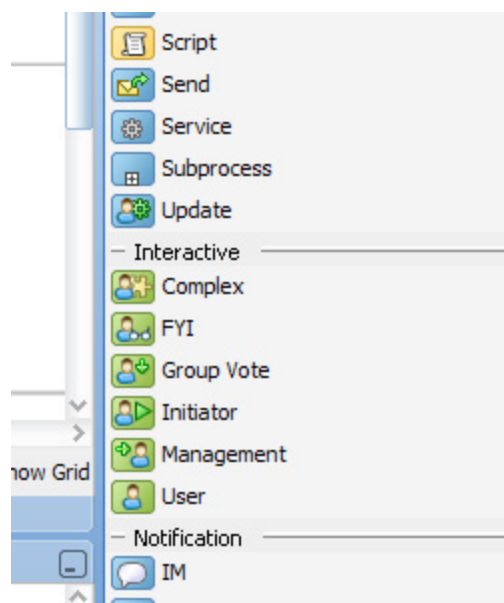
Repeat the steps and add “Process Owner.” Drag the “Start” and “User Task” icons to the SalesRep swim lane. The main window should look something like this:



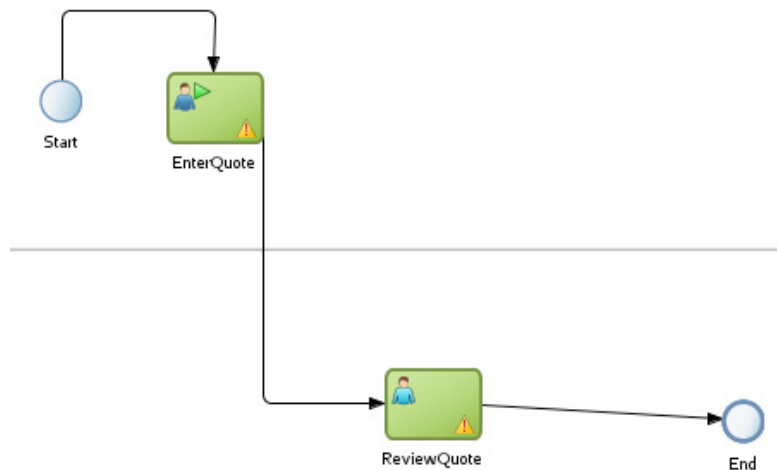
Double-click the “UserTask” icon and change the name to “EnterQuote”:



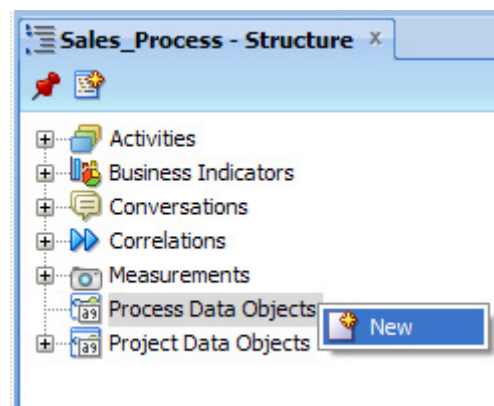
From the Component Palette, drag “User” to the Process Owner swim lane:



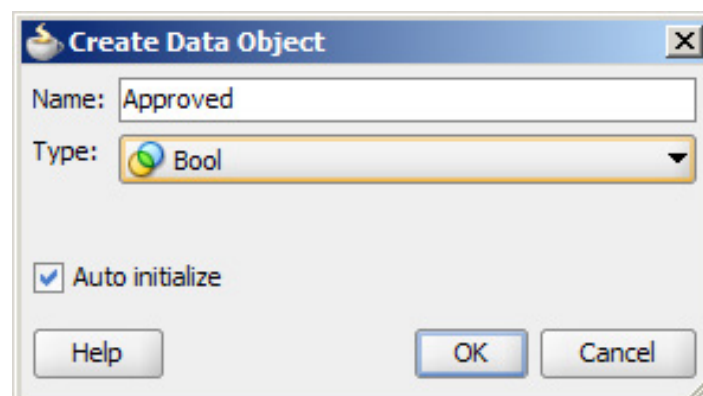
Call the process “ReviewQuote” and drag it in between “EnterQuote” and “End”:



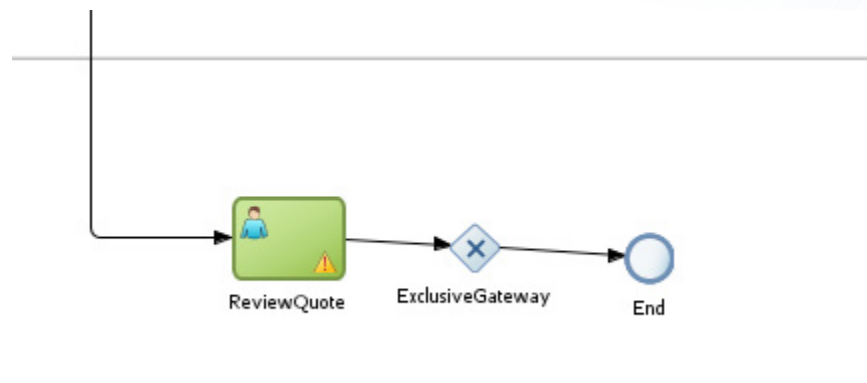
Right-click on “Process Data Objects” and select “New”:



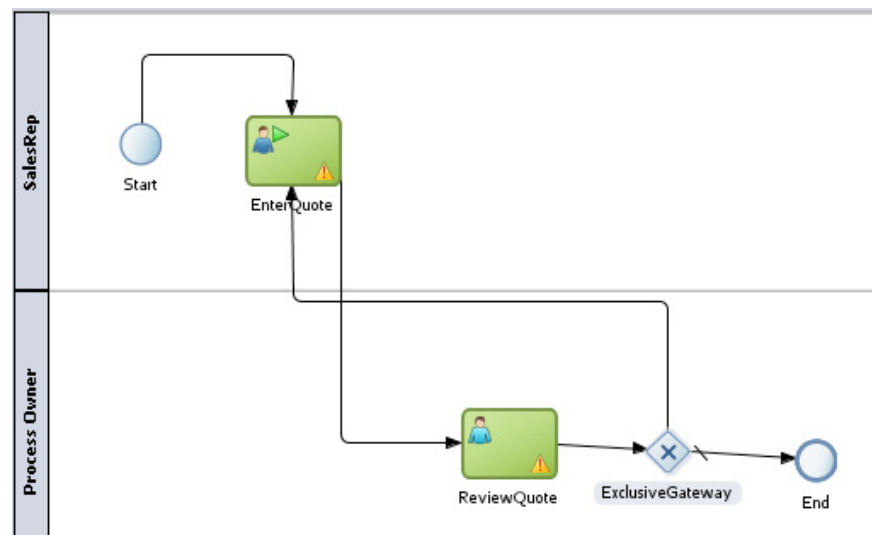
Name it “Approved” and make it a Bool data type:



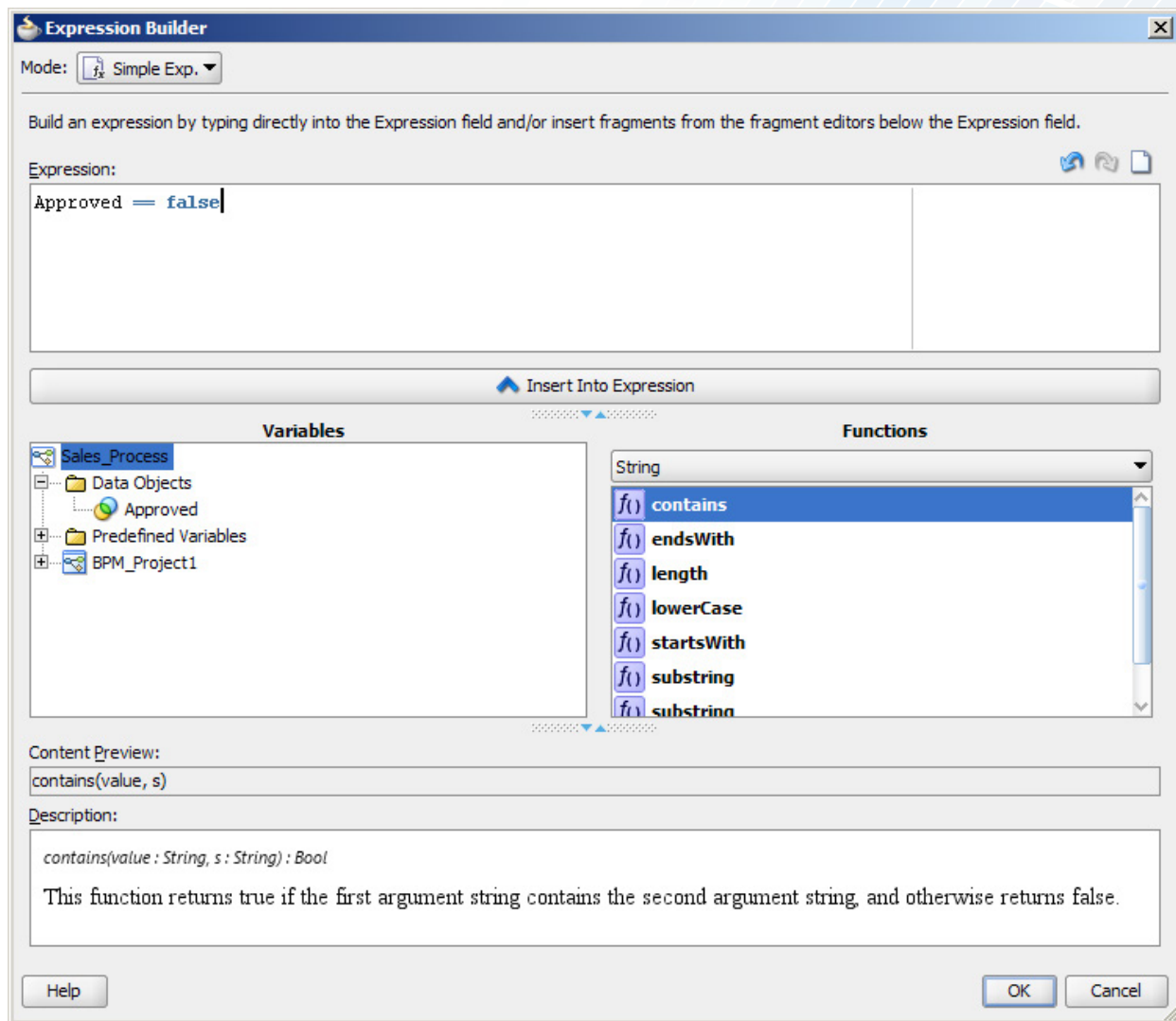
Place an Exclusive Gateway between “ReviewQuote” and “End”:



Right-click the Exclusive Gateway, select “Add Conditional Sequence Flow” and draw a line back to “EnterQuote”:



Double-click the line you just drew back to “EnterQuote”. Click the “Properties” tab and select “Condition” under “Type.” Click the Expression Builder icon in the top-right. In the Expression Builder window, select “Approved” and click “Insert Into Expression,” then add `== false` (yes, that’s 2 equal signs):



Click OK, then OK again.

That's it! You've created your first BPM process! Of course, the code behind the EnterQuote and ReviewQuote elements haven't been written yet (this paper's long enough as it is!), but the point was to show how easy it is for Business Analysts and Process Owners (people who don't typically have a working knowledge of the underlying code) to create BPM processes using a graphical tool like Oracle JDeveloper.



References

¹ Wikipedia

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About the Author

Chris Ostrowski is the Oracle Solution Architect Director at Avout. He has worked with Oracle technologies for over 20 years as a Developer, DBA, Project Manager, and Enterprise Architect. He is a certified Oracle SOA Implementation Champion and an Oracle ACE, well-versed in assembling complex, end-to-end solutions spanning multiple competencies and platforms.

Recently, Chris has focused his efforts on service oriented architecture (SOA) technologies including Oracle JDeveloper and the Oracle SOA Suite, and enterprise technologies including Oracle Fusion Applications and Oracle's Application Integration Architecture. He is the author of three books from Oracle Press: Oracle Application Server 10g Web Development, Oracle Application Server Portal Handbook, and the soon-to-be-released *Migrating to Fusion Applications*. He has written articles for technology publications including Update, Select, Oracle Magazine, and the Oracle blog, and frequently presents at Oracle OpenWorld and various Oracle User Groups. Prior to joining Avout, Chris worked as a Director and Oracle Solution Architect for Fujitsu Consulting.

He holds a Bachelor of Arts from Rutgers University. In his spare time he is an avid hockey fan and plays the guitar.

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